

STATE OF SOUTH DAKOTA CLASS SPECIFICATION

Class Title: Transportation Engineer

Class Code: 40852

A. Purpose:

Assists other engineers in project development, design, and construction within an assigned engineering program to develop working knowledge of state and federal rules and regulations governing transportation construction, and department standards and procedures for construction materials and activities.

B. Distinguishing Feature:

Transportation Engineers are entry level positions and work under direct supervision of other engineering staff for a minimum of two years to learn the application of standard engineering techniques to transportation projects.

Transportation Project Engineers are assigned transportation projects to manage, and work independently with minimal supervision.

C. Functions:

(These are examples only; any one position may not include all of the listed examples nor do the listed examples include all functions which may be found in positions of this class.)

1. Reviews transportation projects to develop a working knowledge of state and federal standards, specifications, policies, and procedures.
 - a. Reviews plans.
 - b. Calculates quantities of materials and cost estimates.
 - c. Verifies survey data.
 - d. Reviews source documentation.
 - e. Participates in on-site reviews.
2. Performs design activities under direct supervision to acquire working knowledge of state and federal design standards and specifications.
 - a. Designs, checks designs, and learns design procedures.
 - b. Assists on individual project designs by gathering and assembling data and drafting designs.
 - c. Assists in preparing plans for office and department review by writing plan notes and checking plan prints.
3. Participates in technical tasks to learn the application and evaluation processes of transportation systems construction.
 - a. Performs drafting work such as plotting survey notes, drawing cross-sections, and drawing initial design.
 - b. Participates on surveying crews to learn equipment and procedures.
 - c. Conducts material tests.
 - d. Assists with on-site preliminary and construction inspections.
4. Performs other work as assigned.

D. Reporting Relationships:

Reports to other engineers. Does not supervise.

E. Challenges and Problems:

Challenged to attain a working knowledge of department, state, and federal standards, procedures, and regulations governing transportation projects. This is difficult because of the volume and variety to be learned.

Problems resolved include applying the proper policies, procedures, and standards to work assignments.

F. Decision-making Authority:

Decisions are limited to activities relating to work assignments. Unusual situations or circumstances would be referred.

G. Contact with Others:

Daily contact with engineering staff for training purposes and to receive work direction; and occasional contact with landowners, contractors, city engineers, and county supervisors when working on construction projects.

H. Working Conditions:

Works in a typical office environment, on construction sites, and in laboratories; is exposed to heavy equipment, traffic, and hazardous materials.

I. Knowledge, Skills, and Abilities:

Knowledge of:

- civil engineering theories, principles, and practices;
- basic practices and terminology of computer operation.

Ability to:

- read, interpret, and evaluate engineering plans and specifications for acceptable engineering practices;
- organize, analyze, and evaluate available information and draw reasonable conclusions;
- communicate information clearly and concisely.